

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-30. (Canceled)

31. (Currently Amended) A water treatment plant, comprising:

a controller adapted to read a unique identifier of a filter module and a fluid quality sensor reading from a fluid quality sensor, the filter module having a first filter stage and a second filter stage, the fluid quality sensor being disposed in a flow path between the first filter stage and the second filter stage;

a pump configured to pump fluid through the filter module;

said controller being configured to control the pump to continue pumping if, during a pumping operation, said fluid quality sensor gives a first indication indicating that said filter module is performing adequately;

said controller also being configured to ~~control the pump to~~ read the filter module unique identifier and begin estimating a quantity of fluid pumped when the fluid quality sensor gives a second indication indicating that the first filter stage has failed and that the second filter stage will fail imminently and to control the pump to continue pumping until the estimated quantity of fluid pumped reaches a predetermined quantity of fluid has been pumped and to read the filter module unique identifier when the fluid quality sensor gives a second indication indicating that said filter module will fail imminently, and to read the

filter module unique identifier again once the predetermined quantity of fluid has been pumped and to control the pump to stop pumping when the unique identifier read after pumping the predetermined quantity of fluid matches the unique identifier read when the fluid quality sensor first gave the second indication.

32. (Previously Presented) A plant as in claim 31, wherein said controller includes a data carrier reader to read said unique identifier stored in a data carrier attached to said filter module.

33. (Previously Presented) A plant as in claim 31, wherein said controller is configured to control the pump to not pump fluid if a same unique identifier is read as when said second indication was received by the controller by comparing a read identifier with a stored identifier in said controller or one read by said controller from a database of unique identifiers.

34. (Currently Amended) A water treatment plant, comprising:

a controller adapted to read a unique identifier of a connected filter module having a first filter section and a second filter section, and a water quality from a fluid quality sensor coupled to a flow path between the first filter section and the second filter section;

said controller being configured to continue a pure water generation using the filter module when said fluid quality sensor gives a first indication indicating that said filter module is performing adequately; and

said controller also being configured to continue the pure water generation until for a predetermined quantity of fluid has been pumped if, during the pure water

~~generation, once~~ said fluid quality sensor gives a second indication indicating that said ~~filter module~~ the first filter section has failed and that the second filter section will fail imminently, and thereafter to halt pumping until said filter module is exchanged.

35. (Previously Presented) A plant as in claim 34, wherein said controller includes a data carrier reader to read said unique identifier stored in a data carrier attached to said filter module.

36. (Previously Presented) A plant as in claim 34, wherein said controller is configured to not pump fluid if a same unique identifier is read as when said second indication was received by the controller by comparing a read identifier with a stored identifier in said controller or one read by said controller from a database of unique identifiers.

37. (Previously Presented) A water treatment plant, comprising:
a controller adapted to read a unique identifier of a filter module having a first filter stage and a second filter stage, and a fluid quality sensor reading from a fluid quality sensor disposed along a flow path between the first filter stage and the second filter stage;
and

a pump;

said controller being configured to continue purifying water during a purifying operation with said filter module when said fluid quality sensor gives a first indication indicating that said filter module is performing adequately;

said controller being configured to begin estimating a quantity of fluid pumped once said fluid quality sensor gives a second indication indicating that said first filter stage has failed and that said second filter stage will fail imminently and to continue purifying water with said filter module until the estimated quantity of fluid pumped reaches a predetermined quantity of fluid has been pumped if, during the purifying operation, said fluid quality sensor gives a second indication indicating that said filter module will fail imminently;

said controller being configured to either record an identifier read from said filter module in a list of used filter modules or program a data carrier thereof with a token indicating that said filter module is used; in either case, said controller being configured to thereafter not pump fluid if the same filter module's data carrier is later read by said controller such that a reuse of said filter module is prevented.

38. (Previously Presented) A water treatment plant comprising:

a filter module including first and second filters connected in series and connectable to a supply of fluid;

a pump;

a controller with a fluid quality sensor connected thereto;

said fluid quality sensor being configured to detect a quality of fluid between said first and second filters;

a filter module detector connected to said controller and configured to uniquely detect a filter module connected to said pump;

said controller being configured to control said pump responsively to a signal from said fluid quality sensor and said filter module detector;

said controller being configured to control the pump to continue pumping if, during a pumping operation, said fluid quality sensor gives a first indication;

said controller also being configured to control the pump to continue pumping until a predetermined quantity of fluid has been pumped if, during a pumping operation, said fluid quality sensor gives a second indication, and thereafter to control the pump to not pump fluid until said filter module is replaced with a different one not corresponding to said unique one.

39. (Previously Presented) A water treatment plant as in claim 38, wherein said first and second filters are deionizing filters and said fluid quality sensor is a conductivity sensor.

40. (Previously Presented) A water treatment plant as in claim 38, wherein said filter module detector is a reader for a data carrier.

41. (Previously Presented) A water purification plant for preparing treatment fluid for use in extracorporeal blood treatment, comprising:

a resistivity monitor that is configured to shut a pump down when resistivity falls below a predetermined conductivity;

a filter including first and second deionization stages;

said resistivity monitor being positioned to detect a water quality between said first and second deionization stages, the first stage having a larger capacity than said second stage;

whereby, when said resistivity monitor detects a low resistivity and thereby breakthrough of contaminants and a consequent need for replacement of at least the first deionization stage, said second deionization stage is able to continue to filter so as to provide continued filtration for a time after breakthrough of said first deionization stage.

42. (Previously Presented) A water purification plant as in claim 41, wherein said predetermined conductivity is about 2 megohms.

43. (Previously Presented) A water purification plant for preparing treatment fluid for use in extracorporeal blood treatment, comprising:

a replaceable deionizing filter module including a deionizing filter having first and second filter portions, configured such that water to be filtered flows first through said first portion and then through said second portion;

a resistivity sensor located between said first and second filter portions and configured to measure a resistivity of water flowing from said first portion to said second portion;
and

a controller configured to indicate an expiration of said replaceable deionizing filter module when said resistivity sensor indicates a predefined value.

44. (Previously Presented) A water purification plant as in claim 43, wherein said resistivity sensor is a part of said replaceable deionizing filter so as to be replaced therewith.

45. (Previously Presented) A water purification plant for preparing treatment fluid for use in extracorporeal blood treatment, comprising:

a replaceable deionizing filter module including a deionizing filter having first and second filter portions, configured such that water to be filtered flows first through said first portion and then through said second portion;

said first portion including separate beds of strong base anion and strong acid cation;

said second portion including a mixed bed of anion and cation; and

a resistivity sensor located between said first and second filter portions and configured to measure a resistivity of water flowing from said first portion to said second portion.

46. (Previously Presented) A water purification plant as in claim 45, further comprising a controller configured to indicate an expiration of said replaceable deionizing filter module when said resistivity sensor indicates a predefined value.

47-51. (Canceled)

52. (Previously Presented) A treatment plant for preparing purified water for medical use, comprising:

a controller having a data carrier reader; and

a station on said controller adapted to receive filter modules for purifying water, each filter module having a respective data carrier with a unique identifier;

said controller being configured to read a unique identifier from a respective data carrier and compare the read unique identifier, when a filter module is received by said station, to at least one other identifier and to prevent a water preparation operation or proceed with a water preparation operation responsively to a result of said comparison.

53. (Previously Presented) A treatment plant as in claim 52, wherein said at least one other identifier is included in a list of previously used filter module identifiers, whereby reuse of filter modules is prevented.

54. (Previously Presented) A treatment plant for preparing purified water for medical use, comprising:

a water purification device; and

a controller configured to read data carriers on filter modules attachable to said water purification device, said filter modules having permanently attached data carriers carrying status information for each filter module;

said controller being configured to read the status information from the data carrier on a first filter module when attached to be consumed by said water purification device to purify water;

said controller receiving information from a sensor in the first filter module indicating a contaminant breakthrough, said controller being further configured to store an updated status indicating that the first filter module has been used to its data carrier;

said controller being further configured to prevent the use of said first filter module if said status indicated by the data carrier thereof indicates said first filter module was previously used.

55-61. (Canceled)